EXAMINED

A PRELIMINARY LIST

OF THE

INSECTS OF THE PROVINCE OF QUEBEC

Part II---DIPTERA

(TWO-WINGED FLIES)

IMP. BUREAU ENTOM.
Recd. 30 JUN 1915

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5 JUN 1915

COMPILED BY

ALBERT F. WINN
WESTMOUNT

AND

GERMAIN BEAULIEU
OTTAWA

PUBLISHED AS A SUPPLEMENT TO 7th REPORT OF THE QUEBEC SOCIETY FOR THE PROTECTION OF PLANTS

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INTRODUCTION

In 1912 the Quebec Society for the Protection of Plants published "A Preliminary List of the Insects of the Province of Quebec, Part I.—Lepidoptera," as a supplement to the Fourth Report. The List was prepared by Mr. Albert F. Winn, of Westmount, now for many years an ardent student and enthusiastic collector of insect life of the Province of Quebec, and was well received by lepidopterists of Canada and the United States as filling a long-felt want.

I am pleased to be able to introduce now the second part of the contemplated work, namely "A Preliminary List of the Insects of the Province of Quebec, Part II.—Diptera," prepared by Mr. Albert F. Winn of Westmount and M. Germain Beaulieu of Ottawa. Thanks to the continued liberality of the Hon. Minister of Agriculture, Mr. J. E. Caron, the List is published as an Appendix to the Seventh Report of the Quebec Society for the Protection of Plants.

The thanks of the Society are due Messrs. Winn and Beaulieu for their long, tedious and voluntary labours in connection with the compilation of the List, and to Mr. Charles W. Johnson of the Boston Society of Natural History who very kindly revised the M.S. and not only added a number of species to our records but gave much other valuable information and assistance.

W. LOCHHEAD,
President, Quebec Society for the Protection of Plants.

Macdonald College, Que.
May 1, 1915.

ABBREVIATIONS

In compiling the List of Lepidoptera, an arbitrary set of abbreviations was used to indicate the names of the collectors recording the species from the respective localities. These are to be found on pages 5 to 7 of Part I, but as an unavoidable delay has occurred in the publishing of the present part, the following list is given:

Be. Beaulieu, Germain, Div. of Entomology, Ottawa.

Beaulne, J. I., Div. of Entomology, Ottawa.

Begin, Rev. l'Abbe, Sherbrooke, Que.

C. Chagnon, G., Montreal, Que.

Cd. Caulfield, late F. B., Montreal, Que.

F. Fletcher, late Dr. James, Ottawa.

Fy. Fyles, Dr. T. W., Ottawa.

G. Gibson, Arthur, Div. of Entomology, Ottawa.

Metcalfe, W., Ottawa.

Mi. Mignault, Rev. J. B., St. Thérese de Blainville, Que.

Osten-Sacken, late Baron von, New York.

Tothill, J. D., Div. of Entomology, Ottawa.

Van der Wulp, Frederick M.

W. Winn, Albert F., Westmount, Que.

Y. Young, C. H., Victoria Museum, Ottawa.

LITERATURE USED IN COMPILATION.

Aldrich, J. M.—Catalogue of N. A. Diptera, Smithsonian Mis. Coll. XLVI., No. 1144.

Beaulieu, G. Records of Diptera. Forty-second Annual Report Ent. Society of Ontario, pages 102–106 (1911); Ibid Forty-fourth Report, pages 118–123 (1913).

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Caulfield, F. B. Diptera taken in vicinity of Montreal. Canadian Entomologist, XVI–136.

Chagnon, G. Les Syrphides de la Province de Quebec, 1901.

" List of Canadian Diptera. Entomogical Student, Philadelphia, II., 5–8 and 13–15.

" Additions to list of Syrphidae. Annual Report Ent. Society of Ontario, pages 48–49 (1903).

Fyles, T. W. M.S. List of Diptera in his collection from various parts of this Province, (1911).

" Canadian Entomologist, XXXV., 234.

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Osten-Sacken, C. R. Catalogue of N. A. Diptera. Smithsonian Misc. Collection., XVI., No. 270, (1878).

Tothill, J. D. List of Tachinidae from Province of Quebec. Ottawa Naturalist, XXVIII., 113–116 (1914).

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Order DIPTERA.

This order of insects comprises the "flies" which are easily recognizible in possessing only one pair of wings, the place of the second pair being taken by a pair of knotted threads known as "halteres." The mouth parts are formed sucking. The metamorphosis is complete, the larvae being commonly known as maggots and usually cylindrical and footless.

The order is a very large one, and the species differ very greatly in habits and economic importance. Such species as the house fly and mosquitoes are not only an intolerable nuisance to man, but have of late years come in for a great deal of study in connection with carrying diseases. Others, such as the apple maggot, destroy fruits, and the gall-gnats the crops, Both flies and house flies worry and torment the cattle. Others again are beneficial by being parasitic on noxious insects, and very many act as scavangers by feeding on decaying vegetable and animal matter.

Family TIPULIDAE.

The "Crane flies" have narrow wings, long slender bodies and very slender legs. They resemble mosquitoes but are much larger and are most commonly found in low, marshy land and at the edges of woods. Their flight is usually for a short distance at a time and is slow and awkward, as is also their mode of walking.

The larvae of most species live in the ground feeding on roots just below the surface.

RHIPIDIA Meig.

R. maculata Meig. Chambly Co., IX. (Be). Rigaud VI (Be); Aylmer VI (Beaulne).

DICRANOMYIA Steph.

D. distans O. S. Rigaud VI (Be).

D. immodesta O. S. Montreal IX (Be); Rigaud VI (Be).

D. longipennis Schum. Province of Quebec (Osten-Sacken).

D. liberta O. S. Montreal VI (C); Rigaud VI (Be); Hull VI (Beaulne).

D. pudica O. S. Montreal VII (Be); Rigaud VI (C).

LIMNOBIA Meig.

L. cinctipes Say. Montreal V (Be).

L. indigena O. S. Sherbrooke Co. V–VI (Be); Vaudreuil Co. (Be).

L. solitaria O. S. St. Hilaire VII (C); Gatineau VII (Be); Hull VII (Beaulne).

ELEPHANTOMYIA Osten-Sacken.

E. Westwoodi O. S. Prov. of Quebec (Osten-Sacken).

RHAMPHIDIA Meig.

R. flavipes Macq. Coaticook VI (Beaulne); Montreal VI-VIII (C); Hull VII (Beaulne).

RHYPHOLOPHUS Kolen.

R. monticola O. S. Rouville Co. (C).

ANTOCHA O. S.

A. saxicola O. S. (=opalizans O. S.). Coaticook IX (Beaulne); Montreal VI-IX (W); Gatineau VII (Be).

ERIOPTERA Meig.

E. armata O. S. Prov. of Quebec (Osten-Sacken).

E. armillaris O. S. Prov. of Quebec (Osten-Sacken).

E. caloptera Say. Montreal VI (C).

E. chlorophylla O. S. Prov. of Quebec (Osten-Sacken).

E. chrysocoma O. S. Prov. of Quebec (Osten-Sacken).

E. septentrionalis O. S. Montreal VII (Be); Aylmer VI (Beaulne).

E. venusta O. S. Coaticook IX (Beaulne).

E. vespertina O. S. Montreal VII (Be).

GONIOMYIA O. S.

G. subcinerea O. S. Gatineau VII (Be); Aylmer VI (Beaulne).

HELOBIA St. Farg.

H. punctipennis Meig. Montreal VI (C); Hull VII (Beaulne).

GNOPHOMYIA O. S.

G. tristissima O. S. Montreal VI (C); Rigaud VI (Be).

TRICHOCERA Meig.

T. maculipennis Fabr. Montreal VIII (Be).

T. regelationis Linn. Montreal IX (Be).

EPIPHRAGMA O. S.

E. fascipennis Say. Montreal VI (Be).

LIMNOPHILA Macq.

L. adusta O. S. Prov. of Quebec (Osten-Sacken); Montreal IX (Be).

L. brevifurca O. S. Province of Quebec (Osten-Sacken).

L. contempta O. S. Coaticook IX (Beaulne).

L. fuscovaria O. S. Montreal VI (Be); Rigaud VI (C).

L. imbecilla O. S. Aylmer VI-VII) Beaulne).

L. macrocera Say. Montreal VI (Be).

L. montana O. S. Prov. of Quebec (Osten-Sacken).

L. munda O. S. Montreal VI (C).

L. quadrata O. S. St. Johns Co. V-VI (C); Montreal VI (W); Gatineau VII (Be); Hull VI (Beaulne).

L. rufibasis O. S. Montreal (C); St. Johns Co. VI (C); Rigaud VI (Be).

L. tenuipes O. S. Montreal VIII (C).

L. ultima O. S. Prov. of Quebec (Osten-Sacken).

TRICYPHONA Zett.

T. calcar O. S. Stoke Centre VI (W); Meach Lake IX (F).

T. inconstans O. S. Aylmer VI (Beaulne).

PEDICEA Latr.

P. albivitta Walk. Quebec (Fy); Gatineau VII (Be); Aylmer VI (Beaulne).

LIOGMA O. S.

L. nodicornis O. S. Stoke Centre VI (W); St. Johns Co. VI (Be); Montreal VI (C).

BITTACOMORPHA Westw.

B. clavipes Fabr. Cap a l'Aigle VII (W); Levis VII (F); St. Hilaire VII (S); Montreal VIII (Be).

PTYCHOPTERA Meig.

P. rufocincta O. S. Montreal VI (Be).

TANYPTERA Latr.

T. atrata Linn. Quebec (Van der Wulp); St. Rose VII (Be).

T. fumipennis O. S. Bergerville (Fy); Montreal VI (Be).

T. dorsalis Walk. St. Johns Co. VIII (C).

T. topazina O. S. Montreal (C).

CTENOPHORA Meig.

C. apicata O. S. Montreal VI (Be).

STYGEROPIS Loew.

S. fuscipennis Loew. Montreal VII (Be).

PACHYRHINA Macq.

P. collaris Say. Montreal VI (Be).

P. eucera Loew. Montreal VI (Be); Laurentian Mts. VI (Beaulne); Hull VI (Beaulne).

P. ferruginea Fabr. Quebec VII (Fy); Montreal VIII (C); Gatineau VII (Be); Hull VII (Beaulne).

P. incurva Loew. Montreal VI (Be); Aylmer VI-VII (Beaulne).

P. lineata Scopoli. Montreal VI (Be); Hull VII (Beaulne).

P. lugens Loew. Quebec (Fy); Montreal VI (W).

P. occipitalis Loew. Coaticook IX (Beaulne).

P. sodalis Loew. Montreal VIII (Be); Hull VII (Beaulne).

P. tenuis Loew. St. Johns Co. VIII (C); Chambly Co. IX (Be).

P. xanthostigma Loew. Montreal VIII (Be).

TIPULA Linn.

T. abdominalis Say. Gatineau VII (Be); Hull VI (Beaulne).

T. angulata Loew. Aylmer VI (Beaulne); Montreal VI (Be).

T. angustipennis Loew. Montreal VI (C); Rigaud VI (Be); Chelsea V-VI (F); Hull VI (Beaulne).

T. bella Loew. Montreal (C); St. Johns Co. VII-VIII (C).

T. bicornis Loew. Montreal VI (Be); Rigaud VI (Be); Newaygo VI (W).

T. calva Doane. Rigaud VI (Be).

T. cincta Loew. Levis (Fy).

T. cincticornis Doane. Montreal VIII (Be).

T. costalis Say. Gatineau VII (Be); Montreal (C); Hull VII (Beaulne).

T. decora Doane. Montreal (C).

T. dejecta Walk. Montreal VIII (Be).

T. electa Loew. Gatineau VII (Be); Aylmer VI (Beaulne).

T. flavicans Fabr. Quebec (Fy); Montreal IX (C); St. Johns Co. IX (Be); Gatineau VII (Be); Hull VII (Beaulne).

T. grata Loew. Aylmer VI-VII (Beaulne).

T. hebes Loew. Montreal VI (Be); Rigaud VI (Be); Hull VI (Beaulne).

T. illustris Doane. Rigaud VI (C).

T. inermis Doane. Montreal VI (C); Gatineau VII (Be).

T. macrolabis Loew. Aylmer VI (Beaulne).

T. megaura Doane. Aylmer VI (Beaulne).

T. ottawaensis Dietz. 24, IV, 13. Aylmer (Beaulne).

T. pallida Loew. Newaygo VI (W).

T. retorta Van der Wulp. Prov. of Quebec (Van der Wulp).

T. serta Loew. Rouville Co. (C); Montreal (C); Rigaud VI (Be).

T. sulphurea Doane. Montreal VII (Be).

T. tephrocephala Loew. Aylmer VI (Beaulne).

T. trivittata Say. Quebec (Fy); Montreal VI (Be); Gatineau VII (Be).

T. valida Loew. Aylmer VI (Beaulne).

T. vitrea Van der Wulp. Prov. of Quebec (Van der Wulp).

OROPEZA Needham

O. albipes Johnson. Montreal VI (Be).

O. obscura Johnson. Rigaud VI (Be).

Family PSYCHODIDAE.

The "moth-like flies" are frequently found on windows and beneath the leaves of trees. The body and wings are clothed with hair, and at rest the broad wings are held sloping like a roof giving the insect a triangular outline.

PSYCHODA Latr.

P. sp. Montreal VII (Be).

Family CHIRONOMIDAE.

Known as "Midges," these flies are similar in appearance to the mosquitoes and are often seen towards evening, dancing in the air in large swarms. The wings have fewer and less distinct veins than the mosquitoes and are not fringed with scale-like hairs. Some of the larvae are aquatic, others live on decaying leaves.

CERATOPOGON Meig.

C. websteri Cog. Montreal V (Be).

CHIRONOMUS Meig.

C. aberrans Johans. Montreal V (Be).

C, cristatus Fabr. Levis (Fy); Montreal VI (Be).

C. decorus Johans. Montreal V (Be).

C. devinctus Say. Montreal V (Be).

C. dispar Meig. Montreal IX (Be).

C. dorsalis Meig. Montreal VI (Be); Rigaud VI (Be).

C. fascipennis Zelt. Montreal (C).

C. festiva Say. Montreal VIII (Be).

C. flavus Johans. Montreal VIII (Be).

C. lineatus Say. Montreal VI (Be).

C. modestus Say. Montreal VI (Be).

C. nigricans Johans. Montreal VI (Be).

C. pedellus Linn. Montreal (C).

C. riparius Meig. Montreal VI (Be).

C. scalaenus Schant. St. Hilaire VI (Be). Montreal V (Be).

C. similis Johans. St. Hilaire VI (Be.)

C. taeniapennis Coq. Quebec VI (Fy); Montreal V (Be).

C. tendens Fabr. Montreal VIII (Be).

ORTHOCLADIUS V. d. Wulp.

O. obumbratus Johans. Montreal V (Be).

CRICOTOPUS V. d. Wulp.

C. bicinctus Johans. Montreal VII (Be).

C. tricinctus Meig. Montreal VI (Be).

C. varipes Coq. Montreal VI (Be).

TANYTARSUS V. d. Wulp.

T. flavellus Zett. Montreal VI (Be).

T. obedicus Johans. St. Hilaire VI (Be).

DIAMESA Meig.

D. waltlii Meig. Montreal VI (Be).

TANYPUS Meig.

T. culiciformis Linn. St. Hilaire VI (Be); Montreal V (Be).

T. hirtipennis Loew. Quebec (Fy).

T. johnsoni Coq. Montreal V (Be).

T. monilis Linn. Montreal VIII (Be).

T. nigropunctatus Staeger. Montreal VII (Be).

Family CULICIDAE

The "Mosquitoes" hardly require a description: their appearance, their song and their sting are familiar to everyone. The larvae of all are aquatic and are commonly known as "wrigglers." The barrels used for collecting rain water in many parts of the country fairly swarm with the young of mosquitoes. If these receptacles are not left uncovered unnecessarily and a little kerosene is poured on any small pools or marshy spots near dwellings a great deal of discomfort may be avoided. The female mosquito alone can sting, the males feeding upon flowers.

ANOPHELES Meig.

A. punctipennis Say. Montreal X in cellar (W).

AEDES Meigen

A. canadensis Theob. East Bolton VII (W); Montreal V (Be).

A. cantans Meig. Montreal (C).

A. cinereoborealis Felt. Montreal VI (Be).

A. consobrinus Rob-Desr. Quebec (Fy).

A. dyari Coq. Montreal V (Be).

A. pagetonotum D. and K. Chelsea V (G).

A. pullatus Coq. Montreal VI (Be).

A. subcantans Felt. Montreal VI (Be).

A. sylvestris Theob. St. Hilaire VII (Be); Montreal VI (Be).

CULEX, Linn.

C. pipiens Linn. Montreal VI–VII (Be).

Family CORETHRIDAE.

These flies used to be considered as being mosquitoes but are now separated from them, and in their weak appearance and light colours more closely resemble the midges. They are not able to pierce the skin. The larvae live in water and are nearly transparent.

SAYOMYIA Coq.

S. punctipennis Say. East Bolton VII (W).

Family MYCETOPHILIDAE.

The "fungus-gnats" are to be found in damp places on fungi and decaying vegetable matter in which the larvae live, often in large colonies. The larvae are usually slender, white and with a black head.

ASYNDULUM Latr.

A. coxale Loew. Montreal (Johannsen).

PLATYURA Meig.

P. fascipennis Say. Montreal VII (Be).

P. melasoma Loew. Laval Co. VIII (Be).

SCIOPHILA Meig.

S. obliqua Say. Montreal VI (Be).

S. similis Johan. Rigaud VI (Johannsen).

NEOEMPHERIA O. S.

N. didyma Loew. Montreal (C).

N. indulgens Johan. Montreal VII (Johannsen).

LASIOSOMA Winnertz

L. fasciata Say. Montreal VII (Be).

MYCETOPHILA Meig.

M. discoidea Say. Rouville Co. (C).

M. punctata Meig. Montreal (C).

ACNEMIA Winnertz

A. flaveola Coq. Montreal VII (Be).

EXECHIA Winnertz

E. nugax Johannsen. Rouville Co. (Johannsen).

BOLITOPHILA Meig.

B. hybrida Meig. St. Johns Co. IX (C).

Family CECIDOMYIDAE

The "Gall-Gnats" are minute creatures with broad wings. There are a very large number of species differing greatly in habits but they have not been studied by any one in this Province. One of the most familiar galls, known as the Pine-cone Willow-gall is made by one of these gnats depositing its eggs in the opening buds of the Willow.

DASYNEURA Rond.

D. gibsoni Felt. Ottawa District (G). Bred from flower heads of Thistles.

LESTODIPLOSIS Kieffer

D. grassator Fyles. Como (Fy). From galls of Phylloxera on Grape.

MAYETIOLA Kieffer.

M. destructor Say. "The Hessian fly."

CECIDOMYIA Meig.

C. carbonifera O. S. Quebec VIII (Fy). Bred from Golden rod leaves.

C. siliqua Walk. Levis (Fy).

C. strobiloides O. S. Montreal (W); Baskatong VII (G).

Family BIBIONIDAE

These are flies of moderate size, with bodies clothed with long hairs; legs long and stout; antennae short; stout, many-jointed. They appear very early in spring and in the U. S. are termed "March flies," but this name would not apply in our Province. The larvae feed on roots of grasses and some on decaying vegetable matter. They have ten pairs of spiracles.

PLECIA Wied.

P. heteroptera Say. Levis (Fy); Montreal (Cd).

BIBIO Geoff.

B. albipennis Say. Montreal (C).

B. femorata Say. Montreal VIII (Be).

B. slossonae Ckll. Montreal (C).

B. longipes Loew. Montreal (C).

B. nigripilus Loew. St. Johns Co. V (C); Chambly Co. V (Be); Montreal V (C); Longueuil V (Be).

B. pallipes Say. Quebec (Fy); Montreal (C); St. Hilaire VI (Be).

DILOPHUS Meig.

D. serraticollis Walk. Montreal (C).

Family SIMULIDAE

The "Black-flies"—like the mosquitoes—are only too well-known in our woods in early summer. The larvae live in great number in running streams, sometimes forming a coating like moss on the rocks. The cocoon in which the pupa stage is passed is fastened to the rocks.

SIMULIUM Latr.

S. hirtipes Fries. St. Hilaire V (Be).

S. invenustum Walk. Montreal (C).

S. molestum Walk. Island of Orleans VII (W); Laurentian Mts. VI-VII (W).

S. pictipes Hagen. Montreal VII (Be).

Family RHYPHIDAE

The "False crane-flies" have broader, spotted wings and are smaller. The larvae live in water or decaying wood, &c.

RHYPHUS Latr.

R. alternatus Say. Levis (Fy).

R. fenestralis Scop. Quebec Prov. (Van der Wulp); Rouville Co. X (C).

R. punctatus Fabr. Montreal V and VII (Be); Rouville Co. VII (C); St. Johns Co. V (C); Vaudreuil Co. (Be).

Family STRATIOMYIDAE

Known as "Soldier flies" on account of bright yellow stripes and bands on a dark ground colour. The body is broad and flattened over which the wings lie flat when at rest. The flies are found about flowers, and in the vicinity of little pools of water and marshy spots.

The larval feeding habits differ greatly; some live on land, others in water, some are predaceous, others live on decaying vegetable matter.

ALLOGNOSTA O. S.

A. fuscitarsis Say. Montreal (C); Rigaud (C).

A. obscuriventris Loew. Montreal VI (C); Rigaud (Be).

ACTINA Meig.

A. viridis Say. Anticosti (Schmidt); St. Hilaire (C); St. Johns (C); Montreal VI (C); Rigaud V (C); Longueuil V (Be).

MACROSARGUS Bigot.

M. cuprarius Linn. St. Hilaire (C); Montreal VI (C); Rigaud VII (Be).

M. decorus Say. Montreal VI (C); Rigaud V-VII (C).

M. viridis Say. Levis (Fy); Montreal VII (Be).

MICROCHRYSA Loew.

M. polita Linn. Levis (Fy); Montreal V (C); VII (Be); Longueuil V (Be); Chambly Co. V (Be).

STRATIOMYIA Geoff.

S. apicula Loew. Montreal (C).

S. badia Walk. Montreal (C); Gatineau VII (Be).

S. discalis Loew. Montreal (C).

S. lativentris Loew. Montreal VI (C); Gatineau VII (Be).

S. meigenii Wied. Montreal VI (C); Rigaud V (C); Gatineau VII (Be).

S. norma Wied. Levis (Fy); Mont St. Hilaire VI (C).

S. normula Loew. Montreal VI (Cd); Gatineau VII (Be).

ODONTOMYIA Meig.

O. cincta Oliv. Montreal (C); Ottawa District VI (G).

O. hydroleonoides Johnson. Rigaud VII (C).

O. interrupta Oliv. Montreal (C); Ottawa District V-VI (G).

O. pubescens Say. Montreal V (C); Rigaud V (C); Gatineau VII (Be).

O. vertebrata Say. Montreal VI (C).

O. virgo Wied. Montreal (C).

NEMOTELUS Geoff.

N. glaber Loew. Montreal VII (Be).

N. rigidus Fall. Ottawa District VI (Metcalfe).

N. unicolor Loew. Montreal VII (Be).

BERIS Latr.

B. morrisii Dale. Quebec (Van der Wulp).

EUPARYPHUS Gerst.

E. bellus Loew. Montreal (C); Ottawa—District VI (Metcalfe).

E. tetraspilus Loew. Quebec (Osten-Sacken).

Family TABANIDAE

The "Horse flies" are serious pests to live stock, and many species are very annoying to man in mid-summer particularly in the woods. They are large in size with a very strong flight. They have the head short and broad with large, often brightly colored eyes and short, many-jointed antennae. The abdomen is flattened. The larvae are carnivorous, living on small animals, snails and insects. Some live in muddy places, in swamps and along small streams, others live in earth.

PANGONIA Latr.

P. tranquilla O. S. Levis VI (Fy).

CHRYSOPS Meig.

C. aestuans Van d. Wulp. St. Johns IX (C).

C. callidus O. S. Montreal (Cd).

C. carbonarius Walk. Levis (Fy); Montreal (Cd); Gatineau VII (Be).

C. celer O. S. Montreal VI (Be); Rigaud VII (C).

C. cuclux Whitney. Rigaud VI (Be).

C. excitans Walk. Montreal (C).

C. frigidus O. S. P.Q. (Osten-Sacken).

C. fugax O. S. Montreal (C); Anticosti (Williston).

C. indus O. S. Montreal VI (C); Gatineau VII (Be).

C. mitis O. S. St. Hilaire VI (C); Montreal VI (C); Vaudreuil Co. VII (Be); Ottawa District VII (Be).

C. niger Macq. Montreal VII (Be).

C. obsoletus Wied. Rigaud VII (C).

C. sackeni Hine. Montreal VI (Be).

C. vittatus Wied. Levis (Fy); St. Hilaire VII (C); Rigaud VII (C); Ottawa District VIII (G).

TABANUS Linn.

T. affinis Kirby. Montreal VI (Be); Ottawa District VII (F).

T. astutus O. S. Montreal (C).

T. bicolor Fabr. Montreal (C).

T. epistates O. S. Montreal VII (Cd); Meach Lake VI (F).

T. lasiophthalmus Macq. Montreal VI (C); Ottawa District VII (Be).

T. lineola Fabr. Levis (Fy); Montreal VI (C); Ottawa District VI (Be).

T. nigrovittatus Macq. Montreal (C).

T. orion O. S. Montreal (C).

T. recedens Walk. (=catenatus Walk (Montreal VII (Cd).

T. reinwardtii Wied. Montreal (C).

T. sepentrionalis Loew. Montreal (C).

T. trispilus Wied. Rigaud VII (C).

T. zonalis Kirby. Mattawa VI (Wilson).

Family LEPTIDAE

The "Snipe flies" are so called from their long legs, conical bodies and sometimes downward projecting beak. The flies are predacious and are found on course grasses and low bushes. The larvae also are predatory and are to be found in wet moss or decaying wood, and some live in dry sandy soil.

LEPTIS Fabr.

L. boscii Macq. Quebec (Fy).

L. hirta Loew. Rigaud VII (C); Montreal (C).

L. mystacea Macq. Montreal VI (C); Rigaud VI (C).

L. punctipennis Say. Montreal VI (Cd).

L. scapularis Loew. East Bolton VII (W).

L. vertebrata Say. Quebec (Fy); Montreal (C).

CHRYSOPILUS Macq.

C. flavida Bigot. Montreal (C).

C. propinqua Walk. Mt. St. Hilaire VI (C); Montreal VI (C).Rigaud VI (C).

C. proxima Walk. Montreal (C).

C. quadrata Say. Levis (Fy); Rigaud VII (C); Montreal VI (Be).

COENOMYIA Latr.

C. ferruginea Fabr. Chambly Co. (Be).; Montreal (C).

ATHERIX Meig.

A. variegata Walk. Montreal (C).

DIALYSIS Walk.

D. elongata Say. Montreal (C).

XYLOPHAGUS Meig.

X. fasciatus Walk. Montreal (C).

X. rufipes Loew. Montreal (C).

Family CYRTIDAE.

The "Small-headed flies" have a large humped thorax and inflated body, but with the head very small in proportion. The larvae are parasitic some species having been found living on spiders, the young larvae being within the abdomen.

PTERODONTIA Gray.

P. flavipes Gray. Gomin swamp near Quebec (Fy); Ile Grosbois VII (St); Rigaud (C).

ONCODES Latr.

O. costatus Loew. Montreal (C).

O. pallidipennis Loew. St. Johns Co. (C).

OPSEBIUS Costa.

O. pterodontinus O. S. Montreal (C).

ACROCERA Meig.

A. bimaculata Loew. Levis Col. (Roy).

Family BOMBYLIIDAE.

The "Bee-flies" vary in size, some being small, others rather large and are usually ornamented with spreading whitish or yellowish hairs, making them resemble bees. They feed on flowers and often are seen resting along sunny paths through woods. The larvae are parasitic on the caterpillars of moths and the eggs of grasshoppers. In the nests of bees they destroy the young larvae and the food supply.

SPOGOSTYLUM Macq.

S. anale Say. Mt. St. Hilaire VI (C); Montreal (C).

S. oedipus Fabr. Montreal (C).

ANTHRAX Scop.

A. alternata Say. Montreal VII (Cd): Gatineau VII (Be).

A. fulviana Say. Levis VIII (Fy); St. Johns IX (C); Montreal IX (C); Hull VII (Beaulne).

A. hypomelas Macq. Montreal (C); Rigaud V (C).

A. lateralis Say. Chateauguay VII (C); Montreal VII (Be); Rigaud VII (C).

A. morio Linn. Montreal VII (C); Rigaud VII (C).

A. sinuosa Wied. Montreal VII (Cd).

A. tegminipennis Say. Montreal (C); Hull VII (Beaulne).

BOMBYLIUS Linn.

B. major Linn. (=fratellus Wied). Levis (Fy); Mt. St. Hilaire V (C); Rigaud V (C). Montreal (C).

B. pygmaeus Fabr. Levis (Fy); St. Hilaire V (C); Montreal V (W).

B. validus Loew. Rigaud V (C); Montreal (C).

SYSTOECHUS Loew.

S. vulgaris Loew. Montreal (C).

Family THEREVIDAE.

Called "Stiletto-flies" from their long pointed bodies. They are not so heavily built as the Robberflies and have longer legs, but otherwise resemble them. The larvae feed in decaying wood fungi and other vegetable matter.

PSILOCEPHALA Zett.

P. grandis Johnson. Rouville Co. (C).

P. haemorrhoidalis Macq. Rigaud VII (C); Montreal VIII (Be).

P. munda Loew. Montreal (C).

THEREVA Latr.

T. candidata Loew. Montreal (Cd).

T. frontalis Say. Montreal (C).

T. senex Walk. Montreal (Cd.)

T. ustulata Krober. Laval Co. Type locality.

Family SCENOPINIDAE.

The "Window-flies" are small blue flies with yellowish legs. The larvae are beneficial as they feed on "moths" and other carpet pests.

SCENOPINUS Latr.

S. fenestralis Linn. Montreal (Cd).

Family ASILIDAE

The "Robber-flies" have a habit of seizing other insects in the air and sucking the juices from their bodies. They are mostly grey or brown mottled with black but a few are brightly coloured. The wings are long and narrow; the body long, robust and covered with hair, and the legs long and powerful, the tips provided with stout claws. The larvae live in decaying wood and are carnivorous so far as known.

LEPTOGASTER Meig.

L. annulatus Say. Quebec (Fy).

L. badius Loew. Montreal VII (Be); St. Johns Co. VI (C).

L. favillaceus Loew. Rigaud VI (Be).

L. flavipes Loew. Rigaud (C); Montreal (C).

L. testaceus Loew. Montreal (C).

CYRTOPOGON Loew.

C. falto Walk. Montreal VI (C); Rigaud V (C).

C. bimicula Walk. Levis Co. VI (Roy).

C. marginalis Loew. Levis Co. VII (Roy).

HOLOPOGON Loew.

H. guttula Wied. Montreal VIII (Be).

LAMPRIA Macq.

L. bicolor Wied. Quebec (Fy).

DASYLLIS Loew.

D. flavicollis Say. Quebec (Fy); Montreal (Cd).

D. grossa Fabr. Montreal (C).

D. posticate Say. Montreal (C).

D. sacrator Walk. Montreal (C).

D. thoracica Fabr. East Bolton VII (W); Montreal VI-VII (C); Rosemere VII (W); Rigaud VII (C).

LAPHRIA Meig.

L. aeratus Walk. Montreal VI (Be).

L. pubescens Willst. Montreal VII (C).

L. canis Willst. Montreal VI (Be).

L. gilva Linn. Montreal (Cd); Rigaud VII (C).

L. sericea Say. Levis (Fy); Montreal (C).

ASILUS Linn.

A. callidus Willst. Montreal (C).

A. flavofemorata Hine. Montreal (C).

A. notatus Wied. Montreal VI (Be).

A. novae-scotiae Macq. Levis (Fy); Mt. St. Hilaire VI (C); Rigaud VII (C).

A. orphene Walk. St. Hilaire VI (Be); Montreal VII (Be).

A. snowii Hine. (=annulatus Willst). Levis (Fy); Mt. St. Hilaire VI (C); Montreal VI (C).

NUSA Walk.

N. fulvicauda Say. Montreal (C).

Family DOLICHOPIDAE

The "Long-footed" flies are predatory, feeding on smaller flies, and are either shining green, black or yellow. The larvae feed on decaying vegetable matter.

SCIAPUS Zell.

S. calcaratus Loew. Montreal VII (Be).
S. caudatus Wied. Rigaud VI (Be).
S. inermis Loew. Hull VII (Beaulne).
S. patibulatus Say. Montreal (C).
S. scobinator Loew. Montreal VII (Be).
S. sipho Say. Montreal VIII (Be); Rigaud VIII (C).
S. tener Loew. Montreal VII (Be).

DIAPHORUS Meig.

D. mundus Loew. Montreal VII (Be).

CHRYSOTUS Meig.

C. obliquus Loew. Montreal VII (Be).
C. wisconsinensis Wheeler. Montreal VII (Be).

PORPHYROPS Meig.

P. effilatus Wheeler. Montreal VII (Be).

NEURIGONIA Rond.

N. carbonifera Loew. Montreal VII (Be).
N. lateralis Say. Montreal VII (Be).

CAMPSICNEMUS Halid.

C. hirtipes Loew. Montreal VII (Be).

ARGYRA Meig.

A. albicans Loew. Montreal VII-VIII (Be).
A. robusta Johns. Vaudreuil Co. VII (Type locality).
A. calceata Loew. Montreal VII (Be).

SYMPYCNUS Loew.

S. lineatus Loew. Montreal VII (Be).

HYDROPHORUS Fallen

H. extrarius Aldrich. St. Johns VIII (Be).

H. pirata Loew. Montreal IX (Be).

DOLICHOPUS Latr.

D. albiciliatus Loew. Montreal (C).

D. albicoxa Aldrich. Montreal VI (Be).

D. bifractus Loew. St. Johns IX (C); Montreal VI-VIII (C).

D. brevimanus Loew. Montreal VII (Be).

D. calcaratus Aldrich. Montreal VII (Be).

D. cuprinus Wied. Montreal VII (Be).

D. dakotensis Aldrich. Montreal VI (Be).

D. detersus Loew. Montreal VII (Be).

D. flagellitenens Wheeler. Montreal VI (Be).

D. incisuralis Loew. Montreal (C).

D. laticornis Loew. Montreal VII (Be).

D. latipes Loew. Montreal VIII (Be).

D. lobatus Loew. Montreal VII (Be).

D. ovatus Loew. Montreal VII (Be).

D. palaestricus Loew. Montreal VII (Be).

D. plumipes Scop. Quebec (Fy).

D. ramifer Loew. St. Johns IX (C).

D. scoparius Loew. Montreal VI and VIII (C).

D. setifer Loew. Montreal VII (Be).

D. socius Loew. Montreal VII (Be).

D. variabilis Loew. St. Johns IX (C).

D. vittatus Loew. St. Johns IX (C); Montreal VI-VIII (C); Hull VII (Beaulne).

GYMNOPTERNUS Loew.

G. barbatulus Loew. Montreal VII (Be).

G. crassicauda Loew. Montreal VII (Be).

G. difficilis Loew. Montreal VII (Be).

G. subulatus Loew. Montreal VII (Be).

G. ventralis Loew. Montreal VII (Be); Gatineau VII (Be).

PELASTONEURUS Loew.

P. vagans Loew. Montreal VII (Be).

TACHYTRECHUS Stan.

T. moechus Loew. Montreal (Be).

Family EMPIDAE

These may be known as "Dance-flies" on account of their habit of dancing up and down in swarms under trees especially near brooks. They are predaceous like the robber flies, but also frequent blossoms. The larvae are probably carnivorous and live in decaying vegetable matter.

STILPON Loew.

S. varipes Loew. Montreal VII (Be).

PLATYPALPUS Meig.

P. aequalis Loew. Montreal VII (Be).

P. crassifemoris Fitch. Montreal VI (Be).

P. hastatus Melander. Montreal VI (Be).

P. trivialis Loew. Montreal VIII (Be).

HEMERODROMIA

H. palloris Coq. Montreal IX (Be).

SYNECHES Walker

S. simplex Walk. Montreal VII (Be).

TACHYDROMIA Meig.

T. enecator Melander. St. Johns (C)

SYNDYAS Loew.

S. polita Loew. Montreal VII (Be).

HYBOS Meig.

H. slossonae Coq. St. Johns VIII (Be).

H. triplex Walker. Montreal VIII (Be); Rigaud VII (C).

LEPTOPEZA Macq.

L. compta Coq. Montreal VII (Be).

EMPIS Linn.

E. nuda Loew. Montreal VI (Be).

E. otiosa Coq. Montreal (C); Chambly Co. V (Be).

E. varipes Loew. Montreal (C).

HILARA Meig.

H. femoralis Loew. Rigaud VI (Be).

H. leucoptera Loew. Montreal VII (Be).

H. tristis Loew. St. Johns VII (Be); Montreal VI (Be).

H. umbrosa Loew. Levis (Fy).

H. velutina Loew. Montreal VII (Be).

CYRTOMA Meig.

C. longipes Loew. Montreal VII (Be); Rigaud VII (Be).

RHAMPHOMYIA Meig.

R. chagnoni Melander. Montreal VI (C); St. Hilaire V (Be).

R. laevigata Loew. Montreal (C).

R. longicauda Loew. Montreal VI (Be).

R. mutabilis Loew. Montreal VI (Be).

R. pulla Loew. Montreal (C).

R. rustica Loew. Montreal (C).

R. umbrosa Loew. Montreal (C).

CLINOCERA Meig.

C. binotata Loew. Montreal (Melander).

Family LONCHOPTERIDAE

The "Spear-winged flies" have very pointed wings. They are usually found near running water.

LONCHOPTERA Meig.

L. lutea Panz. St. Johns Co. IX (C); Montreal VIII (Be).

Family PHORIDAE

The "Hump-back flies" are minute dark coloured species and are sometimes found on window panes, others on fallen leaves. The larvae of some species have been found feeding on dead insects and snails as well as in decaying vegetation.

HYPOCERA Livy.

H. flavimana Meig. (=femorata) Montreal VIII (Be).

APHIOCHAETA Brues

A. rufipes Meig. Montreal IV (Be).

TRUPHEONEURA Mallock

T. pachyneura Loew. Montreal (C. W. Johnson).

DORNIPHORA Dahl.

D. concinna Meig. Montreal VI (Be).

Family PLATYPEZIDAE.

Known as "Flat-footed flies" on account of the broad and much flattened tarsi of the hind legs. They resemble houseflies but are smaller and sometimes occur in swarms near brooks. The larvae live in fungi.

PLATYPEZA Meig.

P. velutina Loew. Montreal (C).

Family PIPUNCULIDAE.

The "Big-eyed flies" are small species with large, spherical head, mostly eyes; the body is thickly covered with hairs and is long, with nearly parallel sides. Wings longer than the body and when resting lie parallel to each other on it. They are sometimes found on flowers or hovering in shady places. The larvae so far known are parasitic on bugs.

PIPUNCULUS Latr.

P. affinis Cress. Montreal VII-VIII (Be).

P. atlanticus Hough. Montreal VI (C).

P. cingulatus Loew. Montreal VIII (Be).

P. discolor Banks. Montreal VII (Be).

P. fuscus Loew. Montreal VI (Be).

P. horvarthi Kert. Montreal IX (Be).

P. nitidiventris Loew. Montreal V (Be).

P. subopacus Loew. Montreal (C).

P. subvirescens Loew. Montreal (C).

Family SYRPHIDAE.

The "Flower-flies" are brightly coloured, often resembling wasps with their black bodies banded with yellow. They live on the nectar or pollen of flowers. The larvae of some of these flies live on plant lice, others on leaves and pollen of plants. others again on decaying vegetable matter and foul excrement.

MICRODON Meig.

M. fuscipennis Macq. St. Johns VII and IX (C); Montreal (Be).

M. globosus Fabr. P.Q. (C).

M. tristis Loew. St. Johns VII (C); Montreal VII (Be).

CHRYSOGASTER Meig.

C. nigripes Loew. Rigaud V (C).

C. pictipennis Loew. Montreal VI (Be); Rigaud V (Be).

C. pulchella Willst. Montreal V-VI (C); Rigaud VI (Be).

PIPIZA Fallen

P. calcarata Loew. Montreal VI (Be).

P. femoralis Loew. Montreal V-VI (C); Rigaud V-VI (C); Gatineau (Be).

P. modesta Loew. St. Johns VI (C).

P. nigripilosa Willst. Sherbrooke V (C); St. Hilaire V (Be).

P. pulchella Willst. Rigaud VI (Be).

P. radicum Walsh and Riley (=pistica Willst). Sherbrooke IX (l'abbé.Bégin); Montreal (C).

PARAGUS Latr.

P. angustifrons Loew. Montreal (C).

P. bicolor Fabr. St. Johns VI-VII (C); Montreal VII-VIII (C); Rigaud VI-VII (C); Gatineau VII (Be).

CHILOSIA Meig.

C. comosa Loew. St. Johns Co. VI (Be).

C. cyanescens Loew. Montreal VI (C).

C. occidentalis Willst. Sherbrooke (l'abbé Bégin).

C. pallipes Loew. Montreal VI (C); Gatineau VII (Be).

BACCHA Fabr.

B. cognata Loew. Montreal VII (C).

B. fascipennis Wied. Montreal VI (Be); Hull (H).

PYROPHAENA Schiner

P. granditarsus Forst (=ocymi Fabr). Montreal VIII (C); Hull (Letourneau).

PLATYCHIRUS St. Farg. and Serv.

P. chaetopodus Willst. Sherbrooke (C); Montreal (Be).

P. hyperboreus Staeger. Montreal V-X (C).

P. peltatus Meig. Sherbrooke V-VI (C); Montreal VI (Be); Rigaud (C).

P. quadratus Say. Montmorency VII (Fy); St. Johns IX (C); Montreal IX (C); Gatineau VII (Be).

MÉLANOSTOMA Schiner

M. coerulesceus Willst. Sherbrooke V (l'abbé Bégin).

M. mellinum Linn. St. Johns IX (C); Montreal IX (C).

M. obscurum Say. Montreal V (C); Rigaud V and VIII (C).

BRACHYOPA Meig.

B. media Will. Rouville Co. V (C).

SYRPHUS Fabr.

S. abbreviatus Zett. Montreal VIII -IX (C).

S. amalopsis O. S. Sherbrooke V-VI (C).

S. americanus Wied. Montmorency (Fy); St. Johns VI-VII (C); Montreal VI-VII (C).

S. arcuatus Fall. Montmorency VII (Fy); St. Johns VIII-IX (C).

S. diversipes Macq. Montreal VI (Be); Rigaud V (C); Montreal VI (Be).

S. grossulariae Meig. (=lesueurü Macq.) St. Hilaire V (C); Montreal VI (Be); Vaudreuil Co. (C).

S. ribesii Linn. Levis (Fy); St. Johns (C); Montreal (Cd); Coaticook VIII (Beaulne).

S. torvus O. S. Rigaud V (C); Montreal VI (Be); St. Johns V (C); Aylmer VIII (Beaulne).

S. umbellatarum Schiner. Sherbrooke V (l'abbé Bégin); Montreal VI (Be).

S. xanthostomus Wied. Levis VI (Fy); Coaticook VIII (Beaulne).

ALLOGRAPTA O. S.

A. obliqua Say. Montreal VII (Be).

LEUCOZOMA Schiner.

L. lucorum Linn. Levis (l'abbé Roy).

PHILHELIUS Steph.

P. emarginata Say. Montreal VII (Be).

P. flavipes Loew. Montreal VIII (C).

TOXOMERUS Meig.

T. boscii Macq. Montreal (C).

T. geminatus Say. Montreal (C); Hull VI (Beaulne); Aylmer VI (Beaulne).

T. marginatus Say. Montreal (C); Hull VII (Beaulne); Aylmer VII (Beaulne).

T. politus Say. St. Johns IX (C).

SPHAEROPHORIA St. Farg. and Serv.

S. scripta Linn. Montreal VIII (Be); Hull and Aylmer VI (Beaulne).

SPHEGINA Meig.

S. keeniana Will. Sherbrooke V-VI (Be).

S. lobata Loew. Levis (l'abbé Roy).

S. rufiventris Loew. Quebec (Fy); Montreal (C).

NEOASCIA Willst.

N. globosa Walk. Sherbrooke (l'abbé Bégin); Montreal VII (Be).

RHINGIA Scopoli.

R. nasica Say. Quebec (Fy); Montreal (Cd).

VOLUCELLA Geoff.

V. evecta Walk and var. sanguinea Willst. Levis (Fy); St. Johns VI (C); Montreal VI (C); Rosemere VII (W); Gatineau VII (Be).

SERICOMYIA Meig.

S. chrysotoxoides Macq. Montreal (C).

S. militaris Walk. Levis VI (Fy); Montreal IX-X (C); Rosemere IX (W); Hull VII (Beaulne).

MERODON Meig.

M. equestris Fabr. Montreal VII (C).

ERISTALIS Latr.

E. arbustorum Linn. Quebec, St. Hilaire, Montreal, Aylmer VI (Beaulne).

E. bastardi Macq. St. Johns VI, VIII-IX (C); Montreal VI, VIII-IX (C); Gatineau VII (Be).

E. dimidiatus Wied. Quebec (Fy); St. Hilaire VIII-IX (C); St. Johns VIII-IX (C); Montreal IX (W); Gatineau VII (Be).

E. flavipes Walk. Montreal VIII (C); Gatineau VII (Be).

E. meigenii Wied. St. Johns VIII-IX (C); Montreal VIII-IX (C); Hull VIII (Be).

E. nemorum Linn. Montreal IX (Be).

E. tenax Linn. St. Johns IX (C); Montreal VIII-IX (C); Ottawa District VIII (Be); Hull 4, VII, 12 (Beaulne).

E. transversus Wied. Quebec (Fy); St. Johns VII-IX (C); Rigaud V (Be); Montreal VII-IX (C); Gatineau VII (Be); Aylmer V (Beaulne).

TROPIDIA Meig.

T. quadrata Say. Montreal VI-VII (C).

HELOPHILUS Meig.

H. conostomus Willst. Levis VI (l'abbé Roy); Rigaud (Des).

H. integer Loew. Montreal (Be).

H. latifrons Loew. Montreal IX (C); Gatineau VII (Be); Hull VII (Beaulne).

H. porcus Walk. Montreal VI (C); Gatineau VII (Be).

H. similis Macq. Montreal IX (C); Hull V (Beaulne).

MALLOTA Meig.

M. cimbiciformis Fallen. Montreal VII (C).

M. posticata Fabr. Montreal VI (C).

TEUCHOCNEMIS O. S.

T. lituratus Loew. Rigaud (Des).

SYRITTA St. Farg. and Serv.

S. pipiens Linn. Common everywhere.

XYLOTA Meig.

X. angustiventris Loew. St. Hilaire VII (C).

X. anthreas Walk. Montreal (C).

X. curvipes Loew. Quebec (Fy); St. Hilaire (C).

X. ejuncida Say. St. Hilaire VI (C); St. Johns VI (C); Montreal VI (Be).

X. nemorum Fabr. Montreal (C).

X. pigra Fabr. Joliette (C); Montreal VI (Be).

X. vecors O. S. Montreal (Be).

CHRYSOCHLAMYS Rond.

C. dives O. S. Montreal (Cd).

BRACHYPALPUS Macq.

B. frontosus Loew. Montreal V (C); Rigaud V (C).

B. rileyi Willst. Montreal V (Be).

CRIORHINA Meigen.

C. armillata O. S. Quebec (Osten-Sacken); Piedmont VI (St).

C. decora Macq. Joliette (O); Montreal (St).

C. intersistens Walk. Montreal VII (C).

SPILOMYIA Meig.

S. fusca Loew. Levis (Fy); Montreal VI (Cd); Rigaud VIII (C).

S. longicornis Loew. Montreal (W).

S. quadrifasciata Say. Quebec (Fy); St. Johns VII (C); Montreal VII (C): Gatineau VII (Be).

SPHECOMYIA Latr.

S. vittata Weid. Montreal (W); Hull VIII (Be).

TEMNOSTOMA St. Farg.

T. alternans Loew. St. Hilaire (C); Montreal (O).

T. bombylans Fabr. St. Hilaire V-VI (C); Montreal V-VI (C).

T. excentrica Harr. Levis VI (Fy).

Family CONOPIDAE.

The "Thick-head flies" have a large head, broader than the thorax; body elongate and fairly well covered with hair. They are found on flowers and some species resemble wasps The larvae are parasitic on bumble bees, wasps and locusts.

PHYSOCEPHALA Schiner

P. furcillata Willst. Levis (Fy); East Bolton VII (W); Montreal (Cd).

P. sagittaria Say. Levis VII (Fy).

P. texana Willst. Montreal (C).

ZODION Latr.

Z. fulvifrons Say. Montreal (Cd).

Z. nanellum Loew. Montreal (Be).

Z. obliquefasciatum Macq. Montreal (C).

ONCOMYIA Loew.

O. abbreviata Loew. East Bolton VII (W); Montreal IX (C).

O. loraria Loew. Montreal VIII (Be).

MYOPA Fabr.

M. vesiculosa Say. Montreal VI (C).

M. vicaria Walk. Montreal (C).

Family OESTRIDAE.

The "Bot-flies" are usually large species, somewhat resembling bees. The larvae are parasitic, living beneath the skin or in the stomach of domestic animals such as the ox, horse and sheep, while deer, rabbits squirrels, etc., are attacked by other species.

GASTROPHILUS Leach.

G. equi Fabr. Cowansville (Fy).

HYPODERMA Clark

H. bovis De Geer. Levis VII; La Trappe, Oka VII (Fr. Isidore); Richelieu VII (T. E. Lareau); Covey Hill VII (Petch).

Family TACHINIDAE

The "Tachinid-flies" are all parasitic on other insects, feeding on cut-worms and other caterpillars to such an extent that a very small percentage escape their attack. The flies resemble the housefly but have the bodies covered with an array of sharp spines. They are sometimes laid on the skin of the caterpillar, and sometimes on the leaves and thus eaten with the leaves.

GYMNOCLYTIA B. & B.

G. immaculate Macq. Quebec (Fy); Montreal VI and VIII (C).

G. occidua Walk. East Bolton VII (W).

GYMNOSOMA Meig.

G. fuliginosa Desv. East Bolton VII (W); Montreal VIII (C); Rigaud V (C); Hull VII (Beaulne).

PHORANTHA Rond.

P. occidentalis Walk. St. Johns IX (C); Montreal VI (C).

ALOPHORA Desv.

A. aeneoventris Will. Ottawa District (Tothill).
A. diversa Coq. Montreal IX (Be).
A. nitida Coq. Sherbrooke IX (Begin).
A. magnipennis Johnson. St. Hilaire V (Be); Montreal (C).
A. pulverea Coq. Montreal X (Be).

CRYPTOMEIGENIA Br. and Berg.

C. theutis Walk. St. Johns Co. VI (C); Montreal (Be); Rigaud V (C).

EULASIONA Towns.

E. comstocki Towns. Chelsea V (F).

ADMONTIA Br. and Berg.

A. degeerioides Coq. St. Johns IX (C); Chambly Co. IX (Be); Montreal (Be).
A. pergandei Coq. Montreal IX (Be).

CLAUSICELLA Rond.

C. johnsoni Coq. Ottawa District VI (Metcalfe).

CELATORIA Coq.

C. spinosa Coq. Chambly Co. V (Be); Montreal VII (Be); Gatineau VII (Be).

HYALOMYODES Towns.

H. triangulifera Towns. St. Johns Co. VIII (C).

EUTRIXA Coq.

E. masuria Walk. Montreal (Be).

HYPOSTENA Meig.

H. dunningii Coq. Montreal VIII (Be).
H. variabilis Coq. St. Johns IX (C); Montreal VII (Be).

POLIDEA Macq.

P. areos Walk. East Bolton VII (W); Montreal VIII (C).

OESTROPHASIA B & B.

O. calva Coq. Ottawa Dist. (Harrington).

SIPHONA Meig.

S. geniculata DeGeer. Montreal V and VII (Be).

SENOTAINIA Macq.

S. trilineata Van der Wulp. Montreal (C).

MELANOPHRYS Willst.

M. insolita Walk. Montreal VI (Be).

CYRTOPHLOEBA Rond.

C. horrida Coq. Montreal IV (C).

PLAGIA Meig.

P. americana Van der Wulp. Ottawa Dist. (G).

APHRIA Desv.

A. ocypterata Towns. Montreal VI (C).

OCYPTERA Latr.

O. carolinae Desv. Quebec (Fy); Montreal VII (Be).
O. dosiades Walk. Montreal VI (C); Hull VIII (Beaulne).

LINNAEMYIA Desv.

L. comta Fallen. Montreal (C).
L. picta Meig. Rigaud VI (Be).

EXORISTA Meig.

E. cheloniae Rond. Chelsea (Tothill).

E. confinis Fall. Montreal (C).

E. eudryae Towns. Ottawa Dist. (F).

E. futilis O. S. Ottawa Dist. (F).

E. griseomicans Van der Wulp. St. Hilaire V (Be).

E. nigripalpis Towns. Chicoutimi IX (Tothill); Maniwaki IX (Tothill).

E. ordinaria Van der Wulp. Montreal V (Be).

E. pyste Walk. Chicoutimi VII (Tothill).

E. vulgaris Fallen. Chicoutimi (Sanders); Quebec (Fy); St. Sylvestre, St. Gabriel de Brandon, Montcalm VI-VII (Sanders), Richmond V (Be); Parasite of spruce bud worm (Tortrix fum-ferana).

PHOROCERA Desv.

P. leucaniae Coq. Montreal VI (C); St. Hilaire V (Be).

P. lophyri Towns. Ottawa Dist (Aldrich).

P. saundersii Willst. Ottawa Dist. (F).

STURMIA Desv.

S. albifrons Walk. Ottawa District (F). Parasitic on Leucarctia acraca.

S. inquinata V. der W. Ottawa District (G).

S. nigrita Towns. Rigaud VI (Be).

MASICERA Macq.

M. eufitchiae Towns. Ottawa Dist. (G).

M. myoidea Desv. Meach Lake (Y); Parasitic on larvae of Papaipema appassionata.

BLEPHARIPEZA Macq.

B. adusta Loew. Montreal VI (W). Parasitic on Halesidota larvae.

B. leucophrys Wied. Mt. St. Hilaire V (C); Chambly Co. V (Be); Meach Lake VII (F).

TACHINOMYIA Town.

T. robusta Town. Ottawa Dist. (Letourneau).

TACHINA Meig.

T. mella Walk. Montreal V-VI (Be).

T. rustica Fallen. Montreal (C); Rigaud VII (Be).

T. simulans Meig. Montreal (C): Ottawa Dist. (Metcalfe).

WINTHEMIA Desv.

W. quadripustulata Fabr. Montreal VI-VIII (Be); Hull VII (Beaulne).

METACHAETA Coq.

M. helymus Walk. Montreal V (C); Hull VIII (Beaulne).

PHORICHAETA Rond.

P. sequax Willst. Ottawa Dist. (G).

GONIA Meig.

G. capitata DeG. Quebec (Fy); Montreal IV and VIII (C); Gatineau VII (Be); Hull VI (Beaulne).

SPALLANZANIA Desv.

S. hesperidarum Willst. Montreal VIII (C).

MICROPHTHALMA Macq.

M. disjuncta Wied. Montreal VIII (C).

PELETERIA Desv.

P. prompta Meig. Montreal (C).

P. robusta Wied. St. Johns IX (C).

P. tessellata Fabr. St. Johns IX (C); Montreal VI (C); Hull VII (Beaulne).

ARCHYTAS Jaen.

A. analis Fabr. East Bolton VII (W); Montreal VIII (C); Rigaud VII (Be); Gatineau VII (Be); Hull VI (Beaulne).

A. aterrima Desv. Montreal VII (Be).

ECHINOMYIA Dumeril

E. algens Wied. Montreal VIII (C); Hull VIII (Beaulne).

E. florum Walk. Quebec (Fy).

EPALPUS Rond.

E. signiferus Walk. Montreal (C); Rigaud V (C).

BOMBYLIOMYIA Br. and Berg.

B. abrupta Wied. St. Hilaire VII (C); Rigaud VII (C); Montreal VIII (Be).

Family DEXIIDAE.

The "nimble-flies" are similar to the Tachinids in structure, and in habits are also parasitic. The legs are longer and the bristle of the antennae is plumose to the tip.

DEXIA Meig.

D. vertebrata Say. Montreal VIII (St). Parasite on Osmaderma erimicola.

PTILODEXIA Br. and Berg.

P. tibialis Desv. Montreal VII (C).

THELAIRA Desv.

T. leucozona Pang. Montreal VIII (Be).

MYOCERA Desv.

M. rava Van der Wulp. Montreal VIII (Be).

Family SARCOPHAGIDAE.

The "Flesh-flies" lay their eggs on exposed meat and other decaying animal matter. These hatch soon after being laid and at once the maggots begin eating. The flies may be distinguished from those of the preceding family by the bristle of the antennae being plumose at the base while the tip is bare.

SARCOPHAGA Meig.

S. helicis Towns. Montreal VII and VIII (Be).

S. sarraceniae Riley. Gomin Swamp near Quebec (Fy).

Family MUSCIDAE.

The "Housefly" is the commonest member of the family and its love for filthy decaying animal and vegetable matter has given a well deserved bad reputation as a carrier of diseases, especially typhoid fever. The killing of a few million flies will have no permanent effect in freeing the cities of these pests so long as refuse and decaying matter is allowed to remain in streets, lanes, shops and dwellings. The presence of flies in quantities is a sure sign of decaying matter and filth with the accompanying disease germs. If the flies do not spread the germs something will. Keep the cities and towns clean and there will be no need to "swat the flies"—there won't be any.

POLLENIA Desv.

P. rudis Fabr. Quebec (Fy); East Bolton VII (W); St. Johns IX-X (C); Montreal IV, IX and X (C); Rigaud IX (C); Hull VII (Beaulne).

CHRYSOMYIA Desv.

C. macellaria Fabr. Montreal VII (Be).

CYNOMYIA Desv.

C. cadaverina Desv. Montreal VII (Be).

CALLIPHORA Desv.

C. erythrocephala Meig. Montreal VII-VIII (C).
C. vomitoria Linn. Levis (Fy.); Montreal VII-IX (C).

LUCILIA Desv.

L. caesar Linn. Levis VI (Fy); East Bolton VII (W); Montreal VII-VIII (C).

PHORMIA Desv.

P. regina Meig. Montreal VI (C); Hull VII (Beaulne).
P. terrae-novae Desv. Montreal VII (Be).

PYRELLIA Desv.

P. serena Meig. East Bolton VII (W).

MORELLIA Desv.

M. micans Macq. Mt. St. Hilaire VI-VII (C); Montreal VI-VII (C); Rigaud V-VII (C).

MUSCA Linn.

M. domestica Linn. The "Housefly" or "Typhoid fly". Common everywhere. Larvae feed in decaying animal or vegetable matter.

GRAPHOMYIA Desv.

G. maculata Scop. Montreal VIII (C).

STOMOXYS Geoff.

S. calcitrans Linn. The "Stable fly." Common everywhere.

HAEMATOBIA St. Farg and Serv.

H. irritans Linn. (=serrata Desv.) The "Horn fly" of the cattle. Levis (Fy); Rosemere VIII (W).

MUSCINA Desv.

M. assimilis Fallen. Montreal IV (C).
M. stabulans Fallen. East Bolton VII (W); Montreal IV (C).

MYOSPILA Rond.

M. meditabunda Fabr. Montreal VII (Be).

OTHELLIA Desv.

O. cornicina Fabr. Montreal (C).

Family ANTHOMYIDAE.

The "Anthomyid flies" are similar in appearance to the house flies, merely differing in technical details. The larval habits differ greatly in different genera.

HYDROTAEA Desv.

H. acuta Stern. Montreal VIII (C).
H. armipes Fallen. Montreal (C); Chambly Co. V (Be).
H. bispinosa Zett. Montreal VIII (C).
H. dentipes Fabr. Montreal (C).

OPHYRA Desv.

O. leucostoma Wied. Quebec (Fy); Montreal VII (Be).

FANNIA Desv.

F. canicularis Linn. Montreal VII (Be).
F. flavibasis Stein. Montreal VII (Be).
F. fuscula Fall. Montreal VII (Be).
F. incisurata Zett. Montreal VIII (Be).
F. scalaris Fabr. Montreal VIII (Be).
F. serena Meig. Montreal VI (Be); St. Johns VIII (C); Chambly Co. VI (Be).

HYETODESIA Rond.

H. deleta Stein. East Bolton VII (W).
H. leucorum Fall. Montreal VII (C).
H. marmorata Zett. Rigaud VII (Be).
H. serva Meig. Montreal (Be); Rigaud VII (Be).
H. umbratica Meig. Montreal VIII (C).

DIXIOPSIS Pok.

D. lacteipennis Zett. Montreal (C).

SPILOGASTER Macq.

S. nitens Stein. Montreal VII (Be).
S. obscurinervis Stein. Montreal VI (Be).
S. pagana Fabr. Rigaud V (C).
S. urbana Meig. Montreal VII (C); Rigaud VII (Be).
S. vespertina Fallen. East Bolton VII (W); Montreal VII (Be).

LIMNOPHORA Desv.

L. compuncta Wied. Montreal VII (Be); Rigaud VII (C); Hull VII (Beaulne).
L. diaphana Wied. Montreal VII (Be); Vaudreuil Co. (C).
L. surda Zett. Montreal VII (C); Chateauguay VII (C); Rigaud VII (C).

ANTHOMYIA Meig.

A. radicum Linn. Quebec (Fy); Montreal VII (Be); St. Johns VI (C). The radish maggot.

HYDROPHORIA Desv.

H. divisa Meig. Montreal V-VI (Be).

HYLEMYIA Rond.

H. alcathoe Walk. Mt. St. Hilaire V (C); Montreal (Be).
H. lipsia Walk. Rigaud V and VII (C).

EUSTALOMYIA Stein.

E. brixia Walk. Montreal (Be); Rigaud VI (Be).
E. vittipes Zett. Montreal VI (Be).

PHORBIA Desv.

P. ceparum Meig. Montreal . The onion maggot.
P. cinerella Fall. St. Johns IX (C); Montreal VI (C); Rigaud (C).
P. fusciceps Zett. Montreal VI-VIII (C); Chateauguay VII (Jack); Chambly Co. V-VI (Be); Hull VI (Beaulne).

PEGOMYIA Macq.

P. bicolor Meade. Levis (Fy). Maggots mine in dock leaves.
P. winthemi Meig. Montreal VIII (Be).

CAENOSIA Meig.

C. ausoba Walk. Montreal VI-VII (C); Rigaud V (C).
C. calopyga Loew. East Bolton VII (W).
C. lata Walk. Montreal VII (Be).
C. ovata Stein. Montreal VII-VIII (Be).
C. pallipes Stein. Montreal VI-VII (Be); Rigaud VI-VII (Be).

SCHOENOMYZA Haliday

S. chrysostoma Loew. Montreal VII (Be).
S. dorsalis Loew. Montreal VIII (Be).
S. leucostoma Mall. Montreal VIII (Be).

LISPA Latr.

L. albitarsis Stein. Montreal VII (Be).
L. uliginosa Fall. St. Johns Co. IX (C).

FUCELLIA Desv.

F. marina Macq. East Bolton VII (W).

MYDAEA Desv.

M. flavicornis Coq. Quebec (Coquillett). Type locality.

Family SCATOPHAGIDAE.

CHAETOSA Coq.

C. punctipes Meig. St. Johns Co. (C).

POELATHEPHILA Becker

P. similis Coq. Chambly Co. V (Be).

CORDYLURA Fall.

C. gagatina Loew. Montreal VI (Be).
C. gracilipes Loew. Chambly Co. V-VI (Be).
C. pallida Fallen. Prov. Que. (Van der Wulp).
C. pleuritica Loew. Montreal (C).

PARALLELOMMA Becker

P. varipes Walk. Montreal VI (C).

SCATOPHAGA Meig.

S. furcata Say. Montreal (C); Chambly V (Be).
S. merdaria Fabr. Montreal VII (Be).
S. stercoraria Linn. Quebec (Fy); Montreal V-VI and VIII (C); Rigaud VII (C).
S. suilla Fabr. Montreal VII (Be); Chambly Co. V-VI (Be); Vaudreuil Co. VIII (C).

Family CLUSIODIDAE.

Small flies, with broad bristly head, body long and narrow with long legs. Wings broad and long. The larvae live under the bark of old and decaying trees.

CLUSIODES Coq.

C. melanostoma Loew. Montreal VI (Be).
C. albimana Meig. Rouville Co. (C).

CLUSIA Haliday

C. lateralis Walk. Quebec (Fy).; Montreal VII (C).

Family HELOMYZIDAE.

These flies have long flattened bodies and comparatively large wings, bristly along the costal edge. The larvae live in decaying wood, fungi and excrement of animals.

HELOMYZA Fallen

H. quinquepunctata Say. Montreal VIII (C).

LERIA Desv.

L. lutea Loew. Quebec (Fy).

SCOLIOCENTRA Loew.

S. helvola Loew. Montreal (C).

ALLOPHYLA Loew.

A. laevis Loew. Montreal VIII (Be); St. Johns (C).

OECOTHEA Haliday

O. fenestralis Fallen. Montreal V-VII (Be).

TEPHROCHLAMYS Loew.

T. rufiventris Meig. Montreal IV-VII (Be); St. Johns V (C).

Family BORBORIDAE.

These are small, yellowish or brownish flies, found flying in swarms over sewage and other decomposing matter in which their larvae feed.

LEPTOCERA Oliv.

L. crassimana Hal. Montreal VII (Be).
L. fontinalis Fallen. Montreal VII (Be).
L. limosa Meig. Montreal (C).

BORBORUS Meig.

B. arcticus Malloch. Ft. Chimo, Ungava Bay (L. M. Turner).
B. equinus Fall. Montreal V-VIII (Be).
B. geniculatus Macq. Montreal VI-VIII (Be).

SPHAEROCERA Latr.

S. subsultans Fabr. Montreal VII (C); St. Johns Co. IX (C); Chambly Co. IX (Be).

Family SCIOMYZIDAE

The flies of this family have long, narrow bodies and long legs. The wings are also long, longer than the body and are often ornamental. They are frequently found along the banks of streams in which the larvae live.

SCIOMYZA Fallen.

S. nana Fallen. Montreal VI-VII (C); Rigaud VII (C).
S. humilis Loew. Montreal VII (Be).
S. obtusa Fallen. Montreal VII-VIII (Be).
S. schonherri Fallen. Montreal VI-VIII (Be).

DRYOMYZA Fallen.

D. aristalis Coq. Laval Co. (Be).
D. varia Coq. Rigaud V (Be).

NEUROCTENA Rond.

N. anilis Fallen. Montreal VI (C); St. Johns IX (C).

TETANOCERA Latr.

T. ambigua Loew. Chambly Co. VII (Be).

T. combinata Loew. Montreal (C); Rigaud VII (C).

T. pallida Loew. Mt. St. Hilaire VI (C); Montreal (C).

T. plebeia Loew. Quebec (Fy); St. Johns IX (C); Montreal VII-VIII; Rigaud V-VII (C); Hull VII (Beaulne) (W).

T. plumosa Loew. Montreal V (Be); Hull VIII (Beaulne).

T. saratogensis Fitch. Montreal VII-VIII (C); Rigaud VII (C).

T. sparsa Loew. Montreal (C); Vaudreuil Co. VII (C).

T. triangularis Loew. Chambly Co. VII (Be).

T. umbrarum Linn. Montreal (C); Rigaud VII (C).

T. valida Loew. Montreal VI-VII (C); Longueuil VI (Be).

SEPEDON Latr.

S. fuscipennis Loew. Montreal VII (Be).

S. pusillus Loew. Montreal IV (Be).

POECILOGRAPHA Melander

P. decora Loew. Montreal VIII (C).

Family SAPROMYZIDAE

These are small flies, with the head as broad or broader than the thorax, legs and antennae short. The larvae are slender and live in decaying vegetation.

LONCHAEA Fallen

L. polita Say. Montreal (Be).

PALLOPTERA Fallen

P. superba Loew. Quebec (Osten-Sacken); Cowansville (Fy).

CAMPTOPROSOPELLA Hendel

C. vulgaris Fitch. Montreal VIII (Be).

LAUXANIA Latr.

L. cylindricornis Fabr. Montreal V (Be); Chambly Co. V-VI (Be).

L. obscura Loew. Montreal VI-VII (C); Rigaud VI-VII (Be).

SAPROMYZA Fallen

S. bispinosa Fallen. Montreal VII (Be).

S. compedita Loew. East Bolton VII (W); Montreal (C).

S. fraterna Loew. Montreal VIII (Be).

S. philadelphica Macq. Montreal VII (Be); Quebec (Wulp).

MINETTIA Desv.

M. lupulina Fabr. Montreal VII-VIII (Be); Hull VIII (Beaulne).

M. quadrilineata Loew. Montreal VI-VIII (Be); Rigaud VII (Be).

Family ORTALIDAE

These are small flies, of metallic colours, the wings banded with brown or black. Legs stout and moderately long.

PYRGOTA Wied.

P. chagnoni Johnson. Montreal (C).

P. undata Wied. Cowansville (Fy); St. Hilaire VI (C); Montreal VI (Cd); Rigaud V (C) Rosemere VII (W).

RIVELLIA Desv.

R. flavimana Loew. St. Hilaire VI-VII (C); Montreal VI (C); Chateauguay VII (C); Gatineau VII (Be).

MELIERIA Desv.

M. ochricornis Loew. Montreal VI (C).

M. similis Loew. Montreal VII (Be); Hull VII (Beaulne).

TEPHRONOTA Loew.

T. canadensis Johnson. Rigaud VII (C); St. Johns VI-VIII (C); Montreal VI-VIII (Be).

T. narytia Walk. Rigaud VII (C).

PSEUDOTEPHRITIS Johnson

P. vau Say. Montreal VI (Be).

CHAETOPSIS Loew.

C. massyla Walk. Rigaud VIII (Be).

SEOPTERA Loew.

S. vibrans Linn. Levis (Fy); Montreal (Cd); Chateauguay VII (C); Gatineau VII (Be). Hull VII (Beaulne).

Family TRYPETIDAE

Called "Peacock flies" on account of their habit of strutting about like peacocks with their prettily marked wings elevated. The flies are gracefully built, fly slowly and keep their wings constantly in motion. Many of the species feed on the leaves or stems of plants, some causing very conspicuous galls to form.

STRAUSSIA Desv.

S. longipennis Wied. Quebec (Fy); Montreal VI (Cd).

ACIDIA Desv.

A. fratria Loew. Prov. Que. (Johnson).

TRYPETA Linn.

T. ruficauda Fabr. (=florescentiae Fallen). Throughout Province (F); Destroys seeds of Canada Thistle.

RHAGOLETIS Loew.

R. pomonella Walsh. Covey Hill; Montreal; Como (Lochhead). The apple maggot.

EUTRETA Loew.

E. sparsa Wied. Quebec (Fy;) Montreal VII (Be).

EUROSTA Loew.

E. solidaginis Fitch. Montreal V-VI (W); Como (Fy). Makes spherical galls on Golden Rod stems.

ICTERICA Loew.

I. seriata Loew. Montreal VII (C).

TEPHRITIS Latr.

T. albiceps Loew. Quebec (Fy); Montreal VIII (Be); St. Johns Co. (C).

EUARESTA Loew.

E. bella Loew. Montreal VIII (C); Rigaud VII (C).

Family MICROPEZIDAE

The flies belonging to this family are very slender, with large wings and long legs. Early stages and feeding habits not known.

CALOBATA Meig.

C. albiceps Van-der-Wulp. Quebec (Van-der-Wulp).

C. univitta Walk. Chateauguay VII (C).

TAENIAPTERA

T. antennipes Say. St. Johns VII (Be).

Family SEPSIDAE

The best known of this family are the parents of the larvae called cheese-mites. The flies are small black and elongated, with iridescent, transparent wings, often with a spot towards the end. They are sometimes seen in swarms about decaying meat, cheese and vegetables. They are very active both in flight and in running about.

SEPSIS Fallen

S. violacea Meig. Montreal VIII (C).

NEMAPODA Desv.

N. cylindrica Fabr. Montreal VIII (C).

N. minuta Wied. Montreal VIII (Be).

PIOPHILA Fallen

P. casei Linn. The cheese-mite or "skipper." Found everywhere.

THEMIRA Desv.

T. putris Linn. Montreal VIII (Be).

Family PSILIDAE

These are slender flies of moderate size, wings large, legs long and moderately long antennae. Some of the larvae have been found in roots and galls on plants.

LOXOCERA Meig.

L. collaris Loew. Montreal VIII (Be).
L. cylindrica Say. Rigaud VII (C).

PSILA Meig.

P. bivittata Loew. Quebec (Osten-sacken).
P. rosae Fabr. P. Q. (F). The "carrot rust fly." Larvae bores in carrots.

Family DIOPSIDAE

The "stem-eyed flies" are so-called on account of a horn-like projection from the head on which the eye is placed. Only one species has been met with and it is found on leaves of the skunk cabbage.

SPHYRACEPHALA Say.

S. brevicornis Say. Rigaud VII (C).

Family EPHYDRIDAE

These are all small species, and never brightly coloured and many are characterized by possessing very large head and mouth. They are usually met with in swamps and meadows.

DICHAETA Meigen

D. caudata Fall. Montreal IX (Be).

NOTIPHILA Fallen

N. scalaris Loew. Montreal VII (Be).

HYDRELLIA Desv.

H. ischiaca Loew. Montreal VII (Be).

H. scapularis Loew. Montreal VII (Be).

PHILYGRIA Stenh.

P. opposita Loew. Montreal V (Be).

PELINA Halliday

P. truncatula Loew. Montreal VII-VIII (Be).

PARYDRA Stenh.

P. bituberculata Loew. Montreal VII (Be).

P. pinguis Walk. Montreal VIII (Be).

P. quadrituberculata Loew. Montreal VII (Be); St. Johns IX (C).

SCATELLA Desv.

S. stagnalis Fallen. Montreal V-VII (C).

Family CHLOROPIDAE (=Oscinidae)

Known as "Frit-flies," are small insects with hemispherical head, flat front, short antennae and short wings. Body ovate, legs short and stout. They are often brightly colored and are commonly found in meadows. The larvae live in the stems of grasses.

MEROMYZA Meig.

M. americana Loew. Montreal VII (Be).

CHLOROPS Meig.

C. assimilis Macq. Montreal V-VIII (C); Hull VII (Beaulne).

C. glabra Meig. Montreal V (Be).

C. grata Loew. Montreal (C); Hull VII (Beaulne).

C. inclinata Becker. Montreal VI (Be).

C. melanocera Loew. Montreal VII (Be); Rigaud VII (Be).

C. obscuricornis Loew. Montreal VII (Be).

C. proxima Say. Montreal VI (C).

C. rufescens Coq. Montreal VII (Be); Vaudreuil Co. VII (Be).

C. sanguinolenta Loew. Rouville Co. V (Be); Montreal VI (Be).

C. unicolor Loew. Montreal VI (Be).

C. variceps Loew. Montreal VI (Be); St. Johns V (C).

C. versicolor Loew. Rigaud VII (Be).

EURINA Meig.

E. exilis Coq. Montreal VII (Be).

HIPPELATES Loew.

H. flavipes Loew. Var. pusio Loew. Montreal VII (Be); Ottawa Dist. (Be).

H. nitidifrons Malloch. Montreal (Be). Paratype taken at Montreal.

OSCINIS Latr.

O. carbonaria Loew. Montreal VI (Be).

O. coxendix Fitch. Montreal VI (Be).

SIPHONELLA Macq.

S. neglecta Becker. Montreal VI (Be).

Family DROSOPHILIDAE

The "Pomace flies" are small yellow flies, living as larvae in decaying fruits. The adults are common about cider mills and pickle factories,

STEGANA Meig.

S. coleoptrata Scop. Montreal VII (Be).

PHORTICA Schiner

P. leucostoma Loew. Montreal VII (Be).

DROSOPHILA Fallen.

D. amoena Loew. Montreal V (Be).

D. ampelophila Loew. Montreal (Cd).

D. funebris Fabr. Rouville Co. (C); Montreal VI-VII (Be); Vaudreuil Co.(C).

D. quinaria Loew. Rigaud VI (Be); Montreal VII (Be).

D. ordinaria Coq. St. Johns Co. IX (C).

SCAPTOMYZA Hardy

S. flaveola Meig. Montreal VII-VIII (Be).

S. graminarum Fallen. Montreal V-VIII (Be).

Family GEOMYZIDAE.

This family comprises some very small flies with comparatively large wings, antennae short, front broad and bristly below the apex. Larvae live in stems of plants.

DIASTATA Meigen

D. vagans Loew. Montreal VIII (Be).

ANTHOMYZA Fallen

A. terminalis Loew. Montreal VII (Be).

Family AGROMYZIDAE

These are small flies, difficult to separate from allied families. The head is broad, antennae short, and wings broad. Some of the larvae mine in leaves others feed upon plant lice, others are found in galls.

NAPOMYZA Haliday

N. chrysanthemi Kowarz. Montreal, reared from marguerita, chrysanthemum, etc., V (G).

N. lateralis Fallen. Montreal VI (Be).

PHYTOMYZA Fallen

P. major Malloch. Ungava Bay (L. M. Turner) type locality.

P. obscurella var **ilicicola** Loew. Hull, Que., reared from **Ilex verticillata** var **tenuifolia** VI (G).

AGROMYZA Fallen

A. angulata Loew. Montreal VII (Be).

A. aeneiventris Fallen. Montreal VI-VII (Be).

A. canadenais Malloch. Montreal VIII (Be).

A. dubitata Malloch. Montreal VII (Be).

A. neptis Loew. Montreal VI (Be).

A. polystigma Meig. Montreal VII (C).

A. scutellata Fallen. Montreal VI (Be).

A. terminalis Coq. Montreal VIII (Be).

A. virens Loew. Montreal VIII (Be).

PHOLEOMYIA Bilimek

P. indecora Loew. Montreal V-VI (Be); Rigaud VI-VII (Be).

DESMOMETOPA Loew.

D. m-album Zett. Montreal VII (Be).

MADIZA Fallen

M. halteralis Coq. Montreal VI (Be).

Family HIPPOBOSCIDAE

The "Louse flies" are flattened, and adapted to live among feathers, chiefly infesting birds of prey. A wingless, degraded species is found in the wool of sheep.

PSEUDOLFERSIA Coq.

P. maculata Coq. St. Thérèse (Mi).

MELOPHAGUS Latr.

M. ovinus Linn. Montreal (St). (The sheep louse-fly).